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van Asselt, H.D.; Gupta, J.; Biermann, F.

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Advancing the Climate Agenda: Exploiting Material and Institutional Linkages to Develop a Menu of Policy Options

Harro van Asselt, Joyeeta Gupta and Frank Biermann

INTRODUCTION

It is now 15 years since the negotiations on climate change formally commenced in 1990.¹ Two years of negotiations led to the adoption of a comprehensive multilateral framework agreement on climate change – the United Nations Framework Convention on Climate Change (UNFCCC) – in 1992.² Two years later, the convention entered into force and paved the way for negotiations to begin on a follow-up protocol. Three years after that, in 1997, the Kyoto Protocol was adopted, which includes targets for industrialized countries and a number of flexible mechanisms for the implementation of these commitments.³ Eight years later, in February 2005, the Kyoto Protocol entered into force. All of these developments point to a rather successful legal regime that has moved incrementally forward and – compared to other complex multilateral environmental agreements – has done so rather quickly.

Yet, the withdrawal of the USA from the Kyoto Protocol in 2001 has cast a damper on the progress made within the regime and has affected its momentum.⁴ This has spawned a series of articles in the literature whose authors can broadly be classified into two categories: those who believe that the best way to address a problem as complex and serious as climate change is to *widen* (include other related issue areas and

institutions)⁵ and *broaden and deepen*⁶ (develop new policies, mechanisms and follow-up protocols) the climate change regime; and those who believe that climate change is so complex that it would be impossible to have a unified global agenda and that one must instead seek solace in the so-called orchestra of efforts where a number of different regional, national, local and/or sectoral agreements are negotiated by like-minded countries, possibly independent of each other.⁷ The most significant difference between these two categories is that the first approach focuses on the

⁵ See, for example, W.B. Chambers (ed.), *Global Climate Governance: Inter-Linkages Between the Kyoto Protocol and Other Multilateral Regimes* (United Nations University Institute of Advanced Studies and Global Environment Information Centre, 1998). On linkages between the climate and non-climate regimes, see F. Yamin and J. Depledge, *The International Climate Change Regime: A Guide to Rules, Institutions and Procedures* (Cambridge University Press, 2004), at 509–543. See also J. Gupta, *The Climate Change Convention and Developing Countries – From Conflict to Consensus?* (Kluwer, 1997), at 198–200.

⁶ Broadening and deepening commonly refers to broadening participation (by developing countries) and deepening commitments (of developed countries). See, for example, A. Michaelowa *et al.*, 'Graduation and Deepening: An Ambitious Post-2012 Climate Policy Scenario', 5:1 *International Environmental Agreements: Politics, Law and Economics* (2005), 25.

⁷ See, in particular, T. Sugiyama and J. Sinton, 'Orchestra of Treaties: A Future Climate Regime Scenario with Multiple Treaties among Like-Minded Countries', 5:1 *International Environmental Agreements: Politics, Law and Economics* (2005), 65. In addition, some writers suggest that countries such as the USA should negotiate such a regional agreement with like-minded countries that also have an interest in using market-based approaches, for example certain Latin American countries. See D. Bodansky, 'US Climate Policy After Kyoto: Elements for Success', *Carnegie Endowment for International Peace*, Policy Brief No 15 (April 2002). Likewise, it has been suggested that the USA should initially stay outside the Kyoto framework and should seek to establish a new framework with China and, possibly, other key developing countries. See R.B. Stewart and J.B. Wiener, *Reconstructing Climate Policy* (AEI Press, 2003). A renewed focus on private and public-private initiatives has also been suggested. See R.A. Rinkema, 'Environmental Agreements, Non-State Actors and the Kyoto Protocol: A "Third Way" for International Climate Action?', 24:3 *University of Pennsylvania Journal of International Economic Law* (2003), 729. Many of these proposals are reviewed in F. Biermann, 'Between the United States and the South: Strategic Choices for European Climate Policy', 5 *Climate Policy* (forthcoming).

¹ For an overview of the negotiations on the United Nations Framework Convention on Climate Change, see D. Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary', 18:2 *YJIL* (1993), 451.

² United Nations Framework Convention on Climate Change (New York, 9 May 1992).

³ Kyoto Protocol to the UN Framework Convention on Climate Change (Kyoto, 11 December 1997).

⁴ In 2001, President Bush rejected the Kyoto Protocol as being 'fatally flawed in fundamental ways'. The USA has, instead, chosen a 'bottom-up' approach, focusing on incentives for new technologies and voluntary (business) participation. See A.C. Christiansen, 'Convergence or Divergence? Status and Prospects for US Climate Strategy', 3:4 *Climate Policy* (2003), 343.

climate regime (UNFCCC, Kyoto Protocol and possible follow-up legal instruments), whereas the latter is characterized by more ad hoc agreements between countries at a regional or sectoral level, or even agreements between public and private parties, all not necessarily under the auspices of a single climate regime.

The starting point of this article is that these two paths are not incompatible and that there is, thus, no need to dichotomize between them. Instead, one can reconcile both approaches by arguing that they may be mutually supportive and that policy options can be explored both within a multilateral framework and outside of it. In fact, almost none of the mentioned proposals on a future climate regime suggest rejecting the multilateral framework completely. On the contrary, most proposals suggest either a role for the UNFCCC as a facilitator for other approaches⁸ or envisage a return to this framework in due time.⁹ This indicates that the second approach does not necessarily exclude multilateralism.

This article identifies a range of policy and legal instruments and measures to help the global effort to address the climate change problem, and specifies whether such measures can be adopted as a direct follow-up to the Kyoto Protocol or whether such measures will require other parties to engage in the debate and adopt regional, sectoral or public/private agreements. The focus is less on *broadening and deepening* the climate change agenda, which has been explored elsewhere in the literature,¹⁰ but rather on how one can *widen* the climate change agenda through new and innovative policy and legal measures, in particular through the utilization of interlinkages of existing material, and the strengthening and promotion of new institutional interlinkages.

The article proceeds as follows. First, the nature of climate change as a political problem will be sketched out and issue linkages (broad, overarching relationships between different issue areas, such as between biodiversity and climate) that are used in the analysis will be conceptualized and defined. Key material and institutional

linkages will be examined with a set of other policies, namely poverty alleviation, land use, energy, trade and investment, air pollution, health, maritime and air transport, human settlements, freshwater, and seas and oceans. The article is then concluded by summing up strategic design options for widening the development of the regime.

CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT

The complexity of resolving the climate change problem can be partly ascribed to the fact that climate change is interlinked in both cause and effect with most areas of human activity. Mitigation of, and adaptation to, climate change requires measures in many sectors that range from energy and transport to land use and urban development. All of these are inherently linked with the development goals of countries. In short, effective climate policy is tantamount to effective sustainable development policy.

Sustainable development, however, is too complex an issue to be addressed within one institutional arrangement.¹¹ In the past decades, therefore, a large number of separate, yet frequently overlapping, treaties and other legal instruments related to sustainable development and environmental protection have been agreed at the international level.¹² Most of these have been negotiated in a single-issue area in order to keep the issues manageable and politically feasible, and to make use of windows of opportunity within the existing global power and interest configurations that allow countries to cooperate on individual issues.¹³ As a result, many agreements in the international arena regulate activities of countries on a number of small-issue areas.¹⁴ This is not just an empirical observation,

¹¹ One reason behind this is the specific nature of the international system, which is often described in political theory as inherently anarchic. However, as much research within the framework of neo-institutionalism has indicated, cooperation among States is possible, for example through the creation of international regimes as networks of principles, norms, rules and decision-making procedures. See, for example, G. Junne, 'Beyond Regime Theory', 27:1 *Acta Politica* (1992), 9.

¹² On the Ecolex website (available at <<http://www.ecolex.org>>), operated jointly by the Food and Agriculture Organization (FAO), United Nations Environment Programme (UNEP) and the World Conservation Union (IUCN), an up-to-date database of environmental treaties can be found. P. Sands, *Principles of International Environmental Law* (Cambridge University Press, 2003), at 127, referring to a 1989 UNEP database, mentions that there were 139 treaties registered at that time. This does not include treaties indirectly related to the environment and the many (over 2000) bilateral treaties.

¹³ O.R. Young, *Global Governance: Drawing Insights from the Environmental Experience. A Conference Report* (Dartmouth College, 1995), at 4.

¹⁴ See, generally, G. Junne, n. 11 above, and E.B. Haas, 'Why collaborate? Issue Linkage and International Regimes', 32 *World Politics* (1980), 357.

⁸ See, for example, T. Sugiyama and J. Sinton, *ibid.*, at 71–74.

⁹ See, for example, R.B. Stewart and J.B. Wiener, n. 7 above, at 132.

¹⁰ Broadening is, for example, explored in J. Gupta, 'Leadership in the Climate Regime: Inspiring the Commitment of Developing Countries in the Post-Kyoto Phase', 7:2 *RECIEL* (1998), 178; and J. Gupta, 'Engaging Developing Countries in Climate Change (KISS and Make-Up!)', in D. Michel (ed.), *Climate Policy for the Twenty-First Century: Meeting the Long-Term Challenge of Global Warming* (Centre for Transatlantic Relations, Johns Hopkins University, 2003), 233. Broadening and deepening proposals have been summed up in D. Bodansky et al., *International Climate Efforts Beyond 2012: A Survey of Approaches* (Pew Center for Global Climate Change, 2004), and many proposals have been assessed by N. Höhne, *What is Next After the Kyoto Protocol? Assessment of Options for International Climate Policy Post-2012*, Ph.D. Thesis (Utrecht University, 2005).

but also a recommendation by several political scientists.¹⁵ Successful regime formation often depends upon the problem being simple, benign and limited.

At the same time, however, linking issues can create new windows of opportunity to synchronize separate regimes and to win support from more countries in a gradual effort to make progress in sustainable development.¹⁶ Such linkages may compensate reluctant countries by serving as side payments and, thus, help promote favourable outcomes in other fields.¹⁷ This idea received an additional impetus from the process of rationalizing and reorganizing the work undertaken within the UN since 1992 to focus on increasing the efficiency of the UN system and remove internal contradictions.¹⁸ Also, links between issues can help to raise climate change on the agendas of governments and to exploit potential co-benefits and no-regrets options.¹⁹ For example, if the climate problem is framed in terms of water or energy policy, then governments may also take actions in those areas that they otherwise may not have been motivated to do if the issue had been framed only as an abstract and long-term threat.²⁰

The analysis below will focus on *material* and *institutional* interlinkages. Material (or functional or factual) linkages are inherent structural connections between policy domains that are largely independent of the rules and procedures of political institutions in the domain. Examples are the effects of deforestation on global warming, or vice versa, and the negative impacts of global warming on agriculture in many regions. *Institutional* and *organizational* linkages are connections between societal institutions, for example between the norm-setting process of the climate regime and the norm-setting process of the biodiversity

regime, as well as linkages between different organizations, for example between different international organizations active on environmental issues. Additional possible linkages between issues not discussed in this article include political (or bargaining) linkages that result from the strategies of countries or negotiation facilitators who are able to link issues in order to generate larger bargains,²¹ and normative interlinkages that result from situations when one regime confirms or contradicts the norms upheld by another institution and, thus, affects its normative compliance pull or the normative force of international law.²²

With material linkages, it is possible to study the potential for enhancing collaboration between two issue areas because of their interconnectedness. With institutional linkages, it is possible to study different institutions, treaties and organizations with a view to examining whether they are compatible, synergetic, incompatible or contradictory. Studying these links helps to identify ways in which the combined impacts of institutions and organizations can be enhanced.²³

MATERIAL AND INSTITUTIONAL LINKAGES

This section reviews material and institutional interlinkages of the climate regime with a number of other issue areas. In each subsection, the material and institutional interlinkages are sketched out, and then proposals for potential additional institutional interlinkages that could be promoted and agreed upon by governments are outlined.

CLIMATE CHANGE AND POVERTY

Since the climate regime includes both rich and poor countries, any attempt to engage developing countries

¹⁵ M. Hisschemöller and J. Gupta, 'Problem-Solving through International Environmental Agreements: The Issue of Regime Effectiveness', 20:2 *International Political Science Review* (1999), 153.

¹⁶ See n. 5 above.

¹⁷ F.W. Mayer, 'Managing Domestic Differences in International Negotiations: The Strategic Use of Internal Side Payments', 46:4 *International The Organization* (1992), at 793.

¹⁸ In 1992, the need for an integrated approach within the UN became clear at the United Nations Conference on Environment and Development in Rio de Janeiro. This led to the establishment of five working groups within the UN to examine the issue of reform. Since then various processes have been set in motion to create more efficiency within the system. See, in general, the website available at <<http://www.un.org/reform/>>. See, on the specific issue of managing environmental issues, for example, the contributions in F. Biermann and S. Bauer, *A World Environment Organization: Solution or Threat for Effective International Environmental Governance?* (Aldershot, 2005).

¹⁹ See J. Gupta and M. Hisschemöller, 'Issue Linkages: A Global Strategy Towards Sustainable Development', 9:4 *International Environmental Affairs* (1997), at 289.

²⁰ Such streamlining can ensure that synergistic results can be optimized at least cost, and contradictory policy impacts are identified and, to the extent possible, minimized.

²¹ See O. Young, *International Governance: Protecting the Environment in a Stateless Society* (Cornell University Press, 1996). These kinds of linkages can be observed in actual negotiations, for example in the negotiation of the Rio conventions, or as a political opportunity, for example the linking of Russian ratification of the Kyoto Protocol in late 2004 to significant concessions related to Russia's World Trade Organization (WTO) accession obtained from the EU.

²² One example is the conflict between world trade law and some environmental standards, which are currently being addressed through the WTO dispute-settlement mechanism. See O.S. Stokke, *The Interplay of International Regimes: Putting Effectiveness Theory to Work?*, FNI Report 10/2001 (Fridtjof Nansen Institute, 2001), at 10.

²³ See, in more detail, H. van Asselt *et al.*, 'Interlinkages of Global Climate Governance', in M.T.J. Kok and H. de Conink (eds), *Beyond Climate: Options for Broadening Climate Policy* (Dutch National Research Programme on Global Change (NRP-GC), National Institute for Public Health and the Environment (The Netherlands) (RIVM), Bilthoven, NRP Report No 500036001, December 2004), at 223–224.

will have to take some of their specific priorities into account, including the need to reduce poverty.²⁴ In addition, there is also a material relationship with poverty alleviation. On the one hand, climate change will have disproportionate, adverse impacts on the poor and is a cause of poverty – in particular the lack of capacity to adapt to climate change impacts.²⁵ On the other hand, countries that have to deal with the immediate pressing needs of poverty alleviation are unlikely to prioritize an abstract and less immediate problem such as climate change.²⁶ Poverty alleviation itself implies increased consumption and possibly production and, hence, an increase in greenhouse gas emissions. Furthermore, poverty can affect the ability of a community to adapt to the impacts of climate change.²⁷ Poverty can be caused by micro-level factors, such as those related to the individual and to households; by meso-level factors, such as those related to communities, production sectors, product and market factors; by macro-factors such as those related to monetary policy, fiscal policy and governance issues; and by international factors, such as those related to trade policy, international debt and monetary policy.²⁸

An effective international climate change strategy would, thus, try to find ways to link up with the poverty policies undertaken at the global level and mainstream climate change concerns within them. This would primarily have to be achieved through influencing foreign aid and development bank (such as the World Bank) policies in such a way that, in addition to reducing poverty, vulnerability to climatic change is reduced. In addition, mainstreaming climate change policy in national sectoral policies is essential in helping developing countries to integrate adaptation into their planning processes. Developing small-scale renewable energy programmes in rural areas could also address the need to both reduce poverty and mitigate climate change. Such programmes are being developed in South Africa and India. They should be affordable and sustainable, as well as integrated into rural development programmes.²⁹

²⁴ See UNFCCC, n. 2 above, which acknowledges this in Article 4(7).

²⁵ See, for example, International Panel of Climate Change, *Summary for Policy Makers, Climate Change 2001: Impacts, Adaptation, and Vulnerability* (Cambridge University Press, 2001), at 8.

²⁶ See J. Gupta, n. 5 above. See also J. Gupta and M. Hisschemöller, n. 19 above.

²⁷ See M. Munasinghe, *Analysing the Nexus of Sustainable Development and Climate Change: An Overview* (Organization for Economic Cooperation and Development, 2003), at 14.

²⁸ See G. Pyatt, 'Poverty Versus the Poor', in G. Pyatt and M. Ward (eds), *Identifying the Poor* (IOS Press, 1999), 53.

²⁹ See J. Gupta et al., *An Asian Dilemma: Modernizing the Electricity Sector in China and India in the Context of Rapid Economic Growth and the Concern for Climate Change* (IVM Report E-04/01, Institute for Environmental Studies, Vrije Universiteit Amsterdam, June 2001).

CLIMATE CHANGE, LAND USE AND BIODIVERSITY

Another critical issue linkage is the link between climate change and land use. The way that land is used, in particular for agriculture and forestry, has implications for greenhouse gas emissions, and climate impacts themselves may affect land use in the future. For example, wet rice cultivation emits methane, while certain soil types and forests absorb greenhouse gases in the stages in which they grow and, hence, form carbon sinks or reservoirs. However, ecosystems that are prone to desertification may lose this function and may contribute to climate change.³⁰ Wetlands (in particular peatlands) also form reservoirs for carbon, but are very sensitive to changes in the climate and related changes, including sea-level rise.³¹

Furthermore, land use is an important factor for the conservation and sustainable use of biodiversity, and climate change may affect biodiversity directly if ecosystems or species are not able to adapt to climate impacts.³² Finally, in many countries, large sections of the population are employed in land-use sectors; therefore, an effective climate change strategy needs to link up with international regimes focusing on these sectors. At the international level, there are conventions dealing with biodiversity (the 1992 Convention on Biological Diversity (CBD)),³³ desertification (the 1994 UN Convention to Combat Desertification (UNCCD))³⁴ and wetlands (the 1971 Ramsar Convention)³⁵. There is no comprehensive global forest treaty,³⁶ but there is presently a mechanism for global

³⁰ United Nations Convention to Combat Desertification (UNCCD) Secretariat, *Review of Activities for the Promotion and Strengthening of Relationships with Other Relevant Conventions and Relevant International Organizations, Institutions and Agencies: Note by the UNCCD Secretariat* (ICCD/COP(3)/9, 28 September 1999).

³¹ See G. Bergkamp and B. Orlando, *Exploring Collaboration between the Convention on Wetlands (Ramsar, Iran 1971) and the UN Framework Convention on Climate Change* (IUCN, 1999), at 6 and 9. See also F. Parish and C.C. Looi, *Wetlands, Biodiversity and Climate Change. Options and Needs for Enhanced Linkage between the Ramsar Convention on Wetlands, Convention on Biological Diversity and UN Framework Convention on Climate Change*, Background Paper for the International Conference on Synergies and Coordination between Multilateral Environmental Agreements (Tokyo, 14–16 July 1999).

³² J.A. Kim, *Institutional Interplay Between Biodiversity and Climate Change: Toward Synergy Creation* (United Nations University (UNU)/Institute of Advanced Studies (IAS) Working Paper No 100, February 2003), at 1.

³³ Convention on Biological Diversity (Rio de Janeiro, 5 June 1992).

³⁴ Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (Paris, 17 June 1994).

³⁵ Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar, 2 February 1971).

³⁶ See D. Humphreys, 'The Elusive Quest for a Global Forests Convention', 14:1 *RECIEL* (2005), 1.

forest policy in the form of the UN Forum on Forests (UNFF),³⁷ and the CBD remains important in this field. Additionally, the Food and Agriculture Organization (FAO) has a number of initiatives that link food security and agricultural issues to climate change.³⁸

The objectives of the regimes on climate change, desertification, forests, biodiversity and wetlands are synergetic.³⁹ However, the cost-effectiveness principle of the climate regime could imply that the ecological dimensions of climate policies are not respected fully.⁴⁰ This is most apparent with regard to the rules on sinks. For example, although the Kyoto Protocol calls for the promotion of sustainable forest management,⁴¹ activities enhancing sinks can both be synergetic or conflicting with the goal of forest conservation. Conflicts may occur if governments seek to achieve their climate goals through cost-effective afforestation or re-forestation projects that involve creating fast-growing monoculture forest plantations that reduce biodiversity.⁴² On the other hand, there is potential

for synergies, if sustainable forest management is promoted.⁴³ In a similar vein, if the use of land for carbon sequestration leads to the conversion of wetlands, this will contradict the objectives of the Ramsar Convention.⁴⁴

Efforts that explicitly address the interactions between climate change and land use and biodiversity are underway. In 2001, the Collaborative Partnership on Forests was established to promote cooperation and coordination on forestry issues (including on the importance of forests for climate change), with the UNFCCC, CBD and UNCCD included in the partnership.⁴⁵ Furthermore, convention secretariats have observer status in each other's regimes, and the secretariats of the Rio conventions (UNFCCC, CBD and UNCCD) have set up a joint liaison group (JLG) to promote cooperation, exchange information on plans and enhance cohesion at the international, as well as the national level.⁴⁶ The FAO is already an observer in the climate negotiations. Additionally, steps have been undertaken to address interlinkages between the Rio conventions and the UNFF with regard to forest landscape restoration at the national level.⁴⁷ In order to enhance synergies and reduce conflicts between the various regimes, there are a number of key policy options, including developing a memorandum of understanding (MoU) between the Ramsar and the

³⁷ See the United Nations Forum on Forests website for more information, available at <<http://www.un.org/esa/forests>>. At the fifth meeting of the UNFF in May 2005, attempts by European countries to abandon the UNFF and to obtain agreement on an international arrangement on forests failed. See 'Fifth Session of the United Nations Forum on Forests – Summary and Analysis', 13:133 *Earth Negotiations Bulletin* (30 May 2005), at 14, available at <<http://www.iisd.ca/download/pdf/enb13133e.pdf>>.

³⁸ By 1988 the Food and Agriculture Organization had established an Interdepartmental Working Group on Climate in Relation to Agriculture and Food Security. In addition, the FAO Forestry Department created a task force on forestry and carbon sequestration to coordinate forestry and climate activities. The FAO also hosts the Global Terrestrial Observing System, under which the Terrestrial Carbon Observation Initiative was developed to monitor carbon sources and sinks in agricultural and rural sectors. See, for an overview of the climate change related activities of the FAO, the FAO's website on climate change, available at <<http://www.fao.org/clim/activities.htm#2>>.

³⁹ See, for example, the Preamble to the UNCCD, n. 34 above, which acknowledges this potential for synergy. Also, the UNFCCC, n. 2 above, calls on parties to 'cooperate in the conservation and enhancement . . . of . . . biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems' (Article 4(1)(d)), and to develop and elaborate 'appropriate and integrated plans . . . for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification' (Article 4(1)(e)).

⁴⁰ The UNFCCC, *ibid.*, Article 3(3), dealing with the precautionary principle, states that 'lack of full scientific certainty should not be used as a reason for postponing . . . measures, taking into account that policies and measures to deal with climate change should be cost effective so as to ensure global benefits at the lowest possible cost' (emphasis added). This requirement thus limits States in taking certain precautionary measures. See F. Yamin and J. Depledge, n. 5 above, at 71. D. Bodansky, n. 1 above, at 503, notes however that this formulation is already less stringent than that of Principle 15 of the Rio Declaration, which requires the measures themselves to be cost effective, rather than taking this into account.

⁴¹ See Kyoto Protocol, n. 3 above, Article 2(1)(a)(ii).

⁴² F. Jacquemont and A. Caparrós, 'The Convention on Biological Diversity and the Climate Change Convention 10 Years After Rio: Towards a Synergy of the Two Regimes?', 11:2 *RECIEL* (2002), at 174.

⁴³ There is no universal agreement as to what constitutes 'sustainable forest management'. According to the FAO, sustainable forest management 'aims to ensure that the goods and services derived from the forest meet present-day needs while at the same time securing their continued availability and contribution to long-term development'. See FAO, *Promoting Sustainable Management of Forests and Woodlands* (FAO, undated), available at <<http://www.fao.org/forestry/site/18227/en>>. Although important rules were agreed upon with regard to forestry activities under the Clean Development Mechanism (CDM), see n. 60 below) at the Ninth Conference of the Parties (COP-9) to the UNFCCC in 2003, non-governmental organizations still argue that these rules do not exclude large-scale monoculture plantations and, hence, do not promote sustainable forest management. See M. Meinshausen and B. Hare, *Sinks in the CDM: After the Climate, Biodiversity goes down the Drain. An Analysis of the CDM Sinks Agreement at COP-9* (Greenpeace, 2003).

⁴⁴ See Ramsar Convention, n. 35 above, Article 3(1), which calls upon parties 'to promote the conservation of the wetlands . . . and as far as possible the wise use of wetlands in their territory'.

⁴⁵ For more information on the Collaborative Partnership on Forests (CPF), see the CPF's website, available at <<http://www.fao.org/forestry/site/2082/en>>.

⁴⁶ UNCCD Secretariat, *Review of Activities for the Promotion and Strengthening of Relationships with Other Relevant Conventions and Relevant International Organizations, Institutions and Agencies: Note by the UNCCD Secretariat* (ICCD/CRIC(1)/9, 15 October 2002). The Ramsar Secretariat was also invited to participate in the joint liaison group, but has only done so occasionally.

⁴⁷ For an overview, see C. Saint-Laurent, 'Optimizing Synergies on Forest Landscape Restoration Between the Rio Conventions and the UN Forum on Forests to Deliver Good Value for Implementers', 14:1 *RECIEL* (2005), 39.

UNFCCC Secretariats.⁴⁸ Another option would be to promote the use of renewable energy (such as solar energy) in rural areas, through financial incentives within the climate regime and through other options such as development aid from the multilateral development banks, thereby reducing the pressure to cut firewood. A third option includes promoting specific measures within the climate regime, such as limiting the generation of carbon credits from converted wetlands, and instead promoting the protection of such wetlands and protecting fragile ecosystems by zoning procedures, introducing the concept of integrated multi-functional land use, and synchronizing the provision of land subsidies and other incentives to allow for multi-functional land use. National workshops, in which the implementation of the different treaties is linked, could help to identify context-specific bottlenecks and synergies.

CLIMATE CHANGE AND ENERGY

Climate change is closely linked to energy. Most energy is developed through the exploitation of fossil fuels and, thus, leads directly or indirectly to the emissions of greenhouse gases. This is also a political strategic link, since energy is a top priority of most governments, even if climate change is not.⁴⁹ At the international level, the institutional context is, in the first place, provided by the International Energy Agency (IEA), which focuses on energy issues of developed countries and which examines global energy issues,⁵⁰ and the International Atomic Energy Agency (IAEA), which aims to 'accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world'.⁵¹ In addition, the 1994 Energy Charter Treaty, signed and ratified by mainly European countries, aims to 'promote long-term

cooperation in the energy field' by regulating energy investment, trade and the transit of energy.⁵² Furthermore, developments in the UN Commission on Sustainable Development (CSD),⁵³ the 2003 International Partnership for a Hydrogen Economy (IPHE),⁵⁴ and the World Commission on Dams (WCD)⁵⁵ have implications for climate change. The various energy regimes are very open-ended and flexible, and are not specifically aimed at promoting sustainable sources of energy as such. Synergies between the climate and energy regimes are mainly limited to questions of energy efficiency and security of energy supply. Both the UNFCCC and the Kyoto Protocol emphasize the need to develop energy-efficient technologies and new sources of energy, as well as technological cooperation,⁵⁶ but otherwise remain quite general on energy issues. Energy sources with low (or no) greenhouse gas emissions are primarily promoted through the IAEA, as well as the various agreements on hydrogen research. However, nuclear energy has other serious environmental and security impacts, and hydrogen is not yet a tried and tested energy carrier.⁵⁷

The potential synergy between climate and energy policy could be exploited further through, perhaps, the development of an international partnership on sustainable energy policy, which may include representatives from countries engaging in international energy initiatives from the climate change regime, as well as fossil fuel exporters. The purpose of such a partnership would be to discuss energy issues in a comprehensive manner so that dams, hydrogen, nuclear energy and fossil fuels are discussed in one forum. Another option is negotiating a protocol to the UNFCCC, promoting the increased use of renewable energy, or a protocol on research and development of energy technologies. Finally, the development and promotion of sectoral

⁴⁸ Similar memorandums of understanding, promoting cooperation in the form of, *inter alia*, information exchange, scientific research and capacity building already exist between the Ramsar and the UNCCD and CBD Secretariats. See UNCCD Secretariat, *Memorandum of Cooperation Between the Bureau of the Convention on Wetlands (Ramsar, Iran, 1971) and the Secretariat of the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa* (Dakar, 5 December 1998), available at <http://www.unccd.int/cop/reports/africa/igo/2004/ramsar_convention-eng.pdf>; and Ramsar Secretariat, *Memorandum of Cooperation Between the Bureau of the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar, 1971) and the Secretariat of the Convention on Biological Diversity (Nairobi, 1992)* (Geneva, 19 January 1996), available at <http://www.ramsar.org/cbd/key_cbd_mou.htm>.

⁴⁹ See, for the link between climate change and energy, F. Sindico and J. Gupta, 'Moving the Climate Change Regime Further Through a Hydrogen Protocol', 13:2 *RECIEL* (2004), at 176–177.

⁵⁰ For more information on the International Energy Agency, see the website available at <<http://www.iea.org>>.

⁵¹ Statute of the International Atomic Energy Agency (New York, 23 October 1956), Article II.

⁵² Energy Charter Treaty (Lisbon, 17 December 1994), Article 2.

⁵³ The United Nations Commission on Sustainable Development tries to coordinate energy policies. 'Energy for sustainable development, industrial development, air pollution/atmosphere, climate change' will be a key issue for the CSD sessions in 2006 and 2007. See CSD, *Report on the Eleventh Session* (Docs E/2003/9 and E/CN.17/2003/6, 9 May 2003), at 11. On the work of the CSD related to energy policy, see T. Marauhn, 'A Global Energy Strategy as a Viable Means for Redressing Climate Change?', 63:2 *Heidelberg Journal of International Law* (2003), 281.

⁵⁴ For more information on the International Partnership for a Hydrogen Economy, see the IPHE's website, available at <<http://www.iphe.net>>. See also F. Sindico and J. Gupta, n. 49 above, who also discuss a host of other bilateral agreements on hydrogen research.

⁵⁵ The World Commission on Dams (WCD) is relevant with regard to large hydropower as an energy source. In a 2000 report, it concluded that large dams bring 'an unacceptable and often unnecessary price . . . especially in social and environmental terms'. See WCD, *Dams and Development: A New Framework for Decision Making* (Earthscan, 2000), at 310.

⁵⁶ See UNFCCC, n. 2 above, Article 4(1)(c); and Kyoto Protocol, n. 3 above, Article 10(c).

⁵⁷ See F. Sindico and J. Gupta, n. 49 above, at 178.

agreements between major energy-producing companies and between major energy-consuming sectors could result in reductions of greenhouse gas emissions in a bottom-up manner.

CLIMATE CHANGE AND TRADE AND FINANCE

Climate change is also intricately linked to trade and finance. Climate change is affected by international trade as trade potentially increases economic activities, which can lead to increased greenhouse gas emissions. Conversely, taking measures to reduce the greenhouse gas emissions in specific countries might adversely affect their competitiveness and, hence, reduce their willingness to participate in such measures.⁵⁸ The substantive link between climate and international finance and investment is that investment regimes and development banks have often invested in projects that have high greenhouse gas emissions, leading to potential conflicts.⁵⁹ Many have also argued that the climate regime is, in effect, an investment regime.⁶⁰

⁵⁸ See also S. Charnovitz, 'Trade and Climate: Potential Conflicts and Synergies', in *Beyond Kyoto: Advancing the International Effort against Climate Change* (Pew Center for Global Climate Change, 2003), at 141. This article does not aim to provide an overview of the many interactions between the trade and climate regimes, including the questions of compatibility of energy taxation and border tax adjustments, climate subsidies and energy-efficiency standards with WTO law. For this, see, generally, D. Brack *et al.*, *International Trade and Climate Change Policies* (Earthscan, 2000); W.B. Chambers (ed.), *Inter-Linkages: The Kyoto Protocol and the International Trade and Investment Regimes* (United Nations University Press, 2001); M. Lodefalk *et al.*, *Climate and Trade Rules – Harmony or Conflict?* (Swedish National Board of Trade, 2004); M. Doelle, 'Climate Change and the WTO: Opportunities to Motivate State Action on Climate Change through the World Trade Organization', 13:1 *RECIEL* (2004), 85; F. Biermann and R. Brohm, 'Implementing the Kyoto Protocol without the United States: The Strategic Role of Energy Tax Adjustments at the Border', 4:3 *Climate Policy* (2005).

⁵⁹ See, on the relation between the climate and investment regimes, for example, J. Werksman *et al.*, 'Will International Investment Rules Obstruct Climate Protection Policies? An Examination of the Clean Development Mechanism', 3:1 *International Environmental Agreements: Politics, Law and Economics* (2003), 59. On the impacts of development banks on the environment see, for example, P. Sands, n. 12 above, at 1026.

⁶⁰ In particular, the Clean Development Mechanism (CDM) is intended to stimulate investment flows from developed to developing countries in order to reduce greenhouse gas emissions. See J. Werksman *et al.*, *ibid.*, at 59. The CDM, established by the Kyoto Protocol, allows non-Annex I (developing country) parties to access additional resources from Annex I (developed country) parties to reduce greenhouse gas emissions (certified emission reductions – CERs) from proposed or existing projects. Annex I parties can use the CERs accruing from these projects to achieve their targets under the Kyoto Protocol. See on the CDM, for example, M. Netto and K.U. Barani Schmidt, 'CDM Project Cycle and the Role of the UNFCCC Secretariat', in D. Freestone and C. Streck (eds), *Legal Aspects of Implementing the Kyoto Protocol Mechanisms* (Oxford University Press, 2005), 175; and F. Yamin and J. Depledge, n. 5 above, at 159–186.

The international institutional context consists primarily of the World Trade Organization (WTO),⁶¹ a range of regional and bilateral trade agreements,⁶² more than 2000 bilateral and regional investment treaties, multilateral development banks and the Global Environment Facility (GEF).

The objectives and principles of the trade and climate regimes are *prima facie* compatible. The WTO Agreement, for example, notes the objective of sustainable development in its Preamble.⁶³ In addition, both the UNFCCC and the Kyoto Protocol specifically aim to ensure compatibility with the trade regime.⁶⁴ Furthermore, the World Bank and the GEF have incorporated the objectives of the climate regime in their policies. However, in the area of investment, some investment agreements prohibit the kind of conditioning of investments that the Kyoto mechanisms promote.⁶⁵ A potential normative conflict with regard to the GEF is the question of who has the final say in project funding and general decisions. In case of conflicts, the GEF could ultimately be held accountable by the Conference of the Parties (COP) of the UNFCCC.⁶⁶ However, apart from some minor problems related to GEF procedures, and the fact that the GEF has systematically postponed financing major adaptation projects, serious conflicts between the GEF and the UNFCCC have not yet occurred.⁶⁷

The linkages between climate, trade and finance are, to some extent, already addressed in international fora. For example, the UNFCCC Secretariat has observer

⁶¹ See the Agreement Establishing the World Trade Organization (Marrakesh, 15 April 1994). For more information on the WTO, see the website available at <<http://www.wto.org>>.

⁶² Most notably, the North American Free Trade Agreement (Washington, Ottawa, Mexico City, 17 December 1992) and the EU internal market.

⁶³ See the Agreement Establishing the WTO, n. 61 above, Preamble. In general, see F. Biermann, 'The Rising Tide of Green Unilateralism in World Trade Law: Options for Reconciling the Emerging North–South Conflict', 35:3 *Journal of World Trade* (2001), 421.

⁶⁴ See UNFCCC, n. 2 above, Article 3(5), which states that '[t]he parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all parties . . . Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade'. See also Kyoto Protocol, n. 3 above, Article 2(3), which states that '[t]he parties included in Annex I shall strive to implement policies and measures . . . in such a way as to minimize adverse effects, including the . . . effects on international trade'.

⁶⁵ See, in general, J. Werksman *et al.*, n. 59 above.

⁶⁶ See P. Sands, n. 12 above, at 1036.

⁶⁷ See S. Oberthür, *The International Regime on Climate Change* (Ecologic, 2001), at 16, who notes that there is room for improvement with regard to the efficiency and responsiveness of the Global Environment Facility (GEF) procedures. In addition, developing countries continue to voice criticisms regarding the GEF, which is often perceived, despite its reform in 1994, as being not fully responsive to southern needs and interests.

status in the meetings of the WTO Committee on Trade and Environment,⁶⁸ and the World Bank and GEF have observer status at the climate COPs. An MoU, specifying the role and responsibilities of both the UNFCCC COP and the GEF, was adopted at the second UNFCCC COP (COP-2) in 1996.⁶⁹ The MoU states, *inter alia*, that the climate COP will 'decide on policies, programme priorities and eligibility criteria related to the convention for the financial mechanism which shall function under the guidance of and be accountable to the COP'.⁷⁰

Since the WTO does not specifically require that its members need to take the climate change issue into account, it might make sense to establish a joint WTO/UNFCCC working group to ensure that potential conflicts between the two regimes are addressed.⁷¹ However, given the fundamental conflict of ideology and interests between the two regimes in that the WTO promotes free trade, which should stimulate cheap production processes, and the UNFCCC and the Kyoto Protocol promote sustainable production processes, the strong institutional framework, history and pedigree of the WTO, the differences in some critical parties to both agreements (notably that the USA and Australia are members of the WTO but have not ratified the Kyoto Protocol), and the different ministries engaged in negotiating the two issues, an MoU would perhaps be more appropriate.⁷² Additionally, 'grand bargaining' could be used to make significant trade-offs in the fields of trade and climate.

Potential conflicts with investment regimes that aim to protect the interests of foreign investors can be avoided by the development and adoption of an international sustainable investment agreement.⁷³ It may also be necessary to mainstream climate

change into investment policies. Since countries do not normally control foreign investment, host countries could develop a number of guidelines for foreign investors.

CLIMATE CHANGE AND AIR POLLUTION

Climate change is also closely linked with other environmental issues, such as (local) air pollution and the depletion of the ozone layer. First, many substances that deplete the ozone layer and many of their substitutes (notably hydrofluorocarbons (HFCs)) are greenhouse gases. Hence, eliminating ozone-depleting substances generally creates synergies with abating climate change; but can also create conflicts with climate protection if the wrong alternative substances or processes are supported.⁷⁴ Second, other air pollutants and greenhouse gases often have common sources, interact with each other in the atmosphere and, separately or jointly, cause a variety of environmental effects.⁷⁵

The international institutional context regarding protection of the ozone layer is mainly provided by the 1985 Vienna Convention⁷⁶ and its 1987 Montreal Protocol.⁷⁷ Several treaties have also been negotiated of which the 1979 Convention on Long-Range Transboundary Air Pollution and its protocols aim, among other things, to reduce sulphur dioxide emissions.⁷⁸ Overall, reducing emissions of air pollutants would most likely lead to a general reduction of greenhouse gas emissions as well.⁷⁹

There are no other formal cooperative forums between the climate and air pollution regimes, although the

⁶⁸ However, the observer status of multilateral environmental agreements (including the UNFCCC) in the Committee on Trade and Environment has not led to any substantive results. See U.P. Thomas, 'Trade and the Environment: Stuck in a Political Impasse at the WTO after the Doha and Cancun Ministerial Conferences', 4:3 *Global Environmental Politics* (2004), at 17.

⁶⁹ See Memorandum of Understanding between the Conference of the Parties and the Council of the Global Environment Facility (Decision 12/CP.2, 29 October 1996), FCCC/CP/1996/15/Add.1.

⁷⁰ *Ibid.*, para. 2.

⁷¹ As suggested by L. Assunção and Z.X. Zhang, *Domestic Climate Policies and the WTO*, United Nations Conference on Trade and Development Discussion Paper No 164 (November 2002), at 21.

⁷² Such a memorandum of understanding could address contentious issues, including the legality, under the WTO, of trade measures taken by parties to the Kyoto Protocol to achieve their Kyoto targets.

⁷³ The International Institute for Sustainable Development (IISD) has undertaken efforts in this direction. See H. Mann *et al.*, *IISD Model International Agreement on Investment for Sustainable Development* (IISD, 2005). A more specific recommendation to address the interactions between the CDM and investment agreements is made by J. Werksman *et al.*, n. 59 above, at 80–82, who recommend addressing these through both the design of the CDM, as well as through negotiation of additional, adjusted investment agreements.

⁷⁴ For an extensive assessment on the material linkages between climate change and ozone depletion, see J. Malabed *et al.*, *Inter-Linkages Between the Ozone and Climate Change Conventions. Part I – Inter-Linkages Between the Montreal and Kyoto Protocols* (United Nations University, 2001); and United Nations Environment Programme, *Environmental Effects of Ozone Depletion and its Interactions with Climate Change: 2002 Assessment* (UNEP Assessment Panel on the Environmental Effects of Stratospheric Ozone Depletion, 2001).

⁷⁵ *Draft Conclusions of the Workshop on Linkages and Synergies of Regional and Global Emission Control* (Laxenburg, Austria, 27–29 January 2003), available at <<http://www.iiasa.ac.at/rains/meetings/AP&GHG-Jan2003/conclusions.pdf>>.

⁷⁶ Convention for the Protection of the Ozone Layer (Vienna, 22 March 1985).

⁷⁷ Protocol on Substances that Deplete the Ozone Layer (Montreal, 16 September 1987).

⁷⁸ Convention on Long-Range Transboundary Air Pollution (Geneva, 13 November 1979).

⁷⁹ Technically, sulphur dioxide emissions can have a temporary cooling effect in the atmosphere. This can mask the warming effect of climate change. While some may argue that this is a negative linkage between the two regimes, the position here is taken that sulphur emissions cause acid rain and, hence, are a serious environmental problem. In any event, the cooling effect is temporary. Hence, there is no real conflict between the air pollution regime and climate change on this issue.

different secretariats are observers in the negotiations in each other's regimes. Research cooperation between the scientific bodies of the climate and ozone regimes has also been initiated.⁸⁰ There is potential for synergies between the financial mechanism of the Montreal Protocol and the UNFCCC, but only if the goals of the two treaties are explicitly synchronized.⁸¹ The UNFCCC explicitly focuses on greenhouse gases not covered by the Montreal Protocol;⁸² however, the Montreal Protocol should ensure that it does not introduce ozone-depleting substances that are greenhouse gases.

CLIMATE CHANGE AND OTHER ISSUE AREAS

Climate change also has links with a number of other issue areas. These include health, international transport, human settlements, freshwater, and the oceans and seas.

Changes in weather and climate can both directly affect human lives through heat and cold waves, but also indirectly through the spread of disease-carrying bacteria and viruses. Mainstreaming climate change impacts and adapting them into the work of the World Health Organization (WHO) may be one way to minimize the adverse effects of climate change on health and goes a step beyond current activities that include reports from the WHO to the UNFCCC Subsidiary Body for Scientific and Technological Advice.

The emissions given out by ships and aircrafts are presently not attributed to countries and are regulated by the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO). Although cooperation with these organizations has been on the UNFCCC agenda for a long time, little progress has been made.⁸³ A common policy-making forum between the three organizations could enhance the effectiveness of policy making. Furthermore, threats of regulation of emissions from ships and aircrafts, or unilateral action by individual

countries or the EU to reduce emissions, could improve the situation.⁸⁴

The UN Centre for Human Settlements (UN HABITAT) promotes sustainable housing and urban governance. There is considerable potential for linking the climate change mitigation and adaptation agenda to the work of this body, for example into HABITAT's Disaster Management Programme. This UN body could help the UNFCCC explore options that could bypass central governments and go directly to city governments to address climate change issues.

Climate change is likely seriously to affect the hydrological cycle and these changes, in turn, can affect the climate. Although it is not yet in force, freshwater issues will be primarily regulated by the 1997 UN Watercourses Convention,⁸⁵ as well as several regional and bilateral agreements. Many of these regimes may need to re-examine the issue of water allocation to see how they can adopt more relevant responses to the impact of climate change on freshwater. Similarly, national governments may need to check whether they have taken into account the impacts of climate change on their water supply and hydropower facilities. Oceans and seas are primarily governed by the 1982 UN Convention on the Law of the Sea⁸⁶ and several regional seas agreements. Possible cooperation with these bodies could ensure that all the new options being explored – such as deep-sea carbon storage – are also taken into account.⁸⁷

CONCLUSIONS

This analysis of ways of widening the climate change regime by using issue linkages reveals a number of potential ways to breathe new life into the process. Some are already being explored by the secretariats of various regimes; some still need to be further developed.

⁸⁰ This cooperation led, in 2005, to a joint report by the scientific bodies of the climate (Intergovernmental Panel on Climate Change) and ozone (Technology and Economic Assessment Panel) regimes: IPCC and TEAP, *Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons* (Cambridge University Press, 2005). A summary is available at <<http://www.ipcc.ch/press/SPM.pdf>>.

⁸¹ This means that coordinated efforts could be made to strengthen financial support for substitutes for ozone-depleting substances that do not exacerbate climate change. This would result in a triple dividend for climate change mitigation, reduction of ozone-depleting substances and cost effectiveness. See J. Malabed *et al.*, n. 74 above, at 23.

⁸² See UNFCCC, n. 2 above, Article 4(1)(a).

⁸³ See Kyoto Protocol, n. 3 above, Article 2(2), which requests the ICAO and IMO to take up the issue of greenhouse gas emissions by international transport, but the organizations have not taken any substantive action as yet.

⁸⁴ S. Oberthür, 'Institutional Interaction to Address Greenhouse Gas Emissions from International Transport: ICAO, IMO and the Kyoto Protocol', 3:3 *Climate Policy* (2003), at 202–203.

⁸⁵ Convention on the Non-Navigable Uses of International Watercourses (New York, 21 May 1997). Although this convention has not yet entered into force, 'its status as the most authoritative statement of general principles and rules governing the non-navigational uses of international watercourses' will likely contribute to its success. See S. McCaffrey, 'The Contribution of the UN Convention on the Law of the Non-Navigational Uses of International Watercourses', 1:3/4 *Int. J. Global Environmental Issues* (2001), at 261.

⁸⁶ United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982). See F. Biermann, 'Land in Sight for Marine Environmentalists? A Review of the United Nations Convention on the Law of the Sea and the Washington Programme of Action', 76:1 *Revue de Droit International, de Sciences Diplomatiques et Politiques* (*The International Law Review*) (1998), 35.

⁸⁷ See, in general, J. Heinrich, *Legal Implications of CO₂ Ocean Storage*, Working Paper (Laboratory for Energy and the Environment, Massachusetts Institute of Technology, July 2002).

Based on the above analysis, it can be concluded that policies to widen the agenda can be classified into four types of measures.

The first type of measures includes those that are needed to align activities in the climate regime with activities in related regimes. This means that parties to the UNFCCC may need to explore the option of developing new MoUs with other UN agencies and bodies. Such MoUs could be established with the GEF (especially with respect to the implementation of the different funding mechanisms), ICAO and IMO, the development banks and the WTO. The politics and economics of these bodies is so complicated that only a high-level agreement may provide the political momentum and the legal mandate to these bodies to explore avenues for cooperation. Where the politics is less charged, there might be room for cooperation at the level of the bureaucracies, that is, the respective secretariats of the existing conventions and organizations. While such cooperation is feasible, actually merging these secretariats to enhance the efficiency of the system will be hard to achieve, as there is fierce competition between host countries.⁸⁸ With regard to land use, a first step would be inviting Ramsar to join as a full member of the JLG between the UNCCD, CBD and the UNFCCC. The development of a joint working group and/or an international partnership on sustainable energy policy could also help to ensure that conflicts with regard to energy issues are signalled early and that possible synergies are explored.

The second type of measures includes those that can be taken either within the climate regime or outside as part of bilateral, multilateral, regional or sectoral agreements. These include the development of protocols encouraging governments to adopt targets for the development of renewable energy, on research and development of energy technologies, and on transnational sectoral targets for highly internationalized sectors to promote technological development. Additionally, national workshops to integrate land-use concerns relating to desertification, deforestation and development with climate change could form a useful method to explore synergies at the national level.

The third type of measures includes those that could be taken exclusively outside the climate regime. These include mainstreaming climate change policy at the international and national level, within the policies of the FAO, UN HABITAT and the development banks, as well as in foreign investment policy (in the form of guidelines for foreign investors). Specific measures include the need for negotiating a possible multilateral sustainable investment agreement.

The fourth type concerns policy measures needed exclusively within the climate regime in follow-up agreements or as decisions of the UNFCCC COP. These include the development of simple rules for funding adaptation strategies in cooperation with the aid agencies; improving the design of the Kyoto Protocol's Clean Development Mechanism (CDM)⁸⁹ to pre-empt investment disputes; developing measures within the CDM to ensure that it cannot be misused through, *inter alia*, providing credits for previously converted wetlands, promote zoning to protect fragile ecosystems (that can also help to reduce vulnerability of local communities), and developing and promoting the concept of multi-functional land use. It might also be appropriate to either amend the existing UNFCCC or add a protocol to deal with other local pollutants, which would also help reduce global warming. A protocol may also be developed to promote cooperation between cities, building on experiences, for example, of UN HABITAT.

These are only some of the possible measures. They may help to buy time in a process where negotiations are flagging on an issue that is increasingly pressing.

Harro van Asselt LL.M. is a legal researcher at the Institute for Environmental Studies (IVM), Faculty of Earth and Life Sciences, Vrije Universiteit, Amsterdam, the Netherlands.

Professor Joyeeta Gupta is Professor of Policy and Law on Water Resources and the Environment at the UNESCO-IHE Institute for Water Education in Delft, the Netherlands, and Deputy Head of the Department of Environmental Policy Analysis at the Institute for Environmental Studies, Faculty of Earth and Life Sciences, Vrije Universiteit, Amsterdam, the Netherlands.

Professor Frank Biermann is Head of Department of Environmental Policy Analysis at the Institute for Environmental Studies (IVM), Faculty of Earth and Life Sciences, Vrije Universiteit, Amsterdam, the Netherlands.

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⁸⁸ See S. Oberthür, 'Clustering of Multilateral Environmental Agreements: Potentials and Limitations', 2:4 *International Environmental Agreements: Politics, Law and Economics* (2002), at 321–322.

⁸⁹ See n. 60 above.